B m					PTO/SB/2
			Applic	ation Number	10/615,416
14.5.X	NSMITTAL	-	Filing	Date	July 7, 2003
<b>"</b>	FORM	•	First N	lamed Inventor	David Scott Wishart
(to be used for all co	rrespondence after	initial filing)	Art Un	nit	1641
4			Exami	iner Name	Unassigned
Total Number of Pag Submission	es in This		Attorn	ey Docket Number	080586-000100US
		ENC	LOSURE	S (Check all that app	ly)
Fee Transmittal	Form	☐ Drawir	ıg(s)		After Allowance Communication to G
Fee Attach	ed	Licens	ing-relate	ed Papers	Appeal Communication to Board of A and Interferences
Amendment/Rep	oly	Petitio	n		Appeal Communication to Group (Ap Notice, Brief, Reply Brief)
After Final			n to Convional App		Proprietary Information
Affidavits/d	eclaration(s)			ey, Revocation espondence Address	☐ Status Letter
Extension of Tim	e Request	☐ Termir	nal Discla	imer	Other Enclosure(s) (please identify below):
Express Abando	nment Request	Reque	st for Re		USPTO forms SB08A & SB08B (five page copies of 57 cited foreign patent publication non-patent references; Return Postcard
☐ Information Disc	losure Statement				non patent reteriores, reterior estears
Certified Copy of Document(s)	Priority	Rema	rks	The Commissioner is Account 20-1430.	authorized to charge any additional fees to D
Response to Mis				J	
	to Missing Parts FR 1.52 or 1.53				
				ICANT, ATTORNEY	, OR AGENT
Firm or	Townsend and		ind Crev		1- 07 004
Individual	Kenneth R. Alle	· · · · · · · · · · · · · · · · · · ·		14/7	lo. 27,301
Signature	Len	neth.	K. I	Allen	
Date	Dec	neth.	200	3	
				TRANSMISSION/N	IAII ING

Typed or printed name Roger Hylton Signature Date 12/17/03

60102174 v1



Attorney Docket No.: 080586-000100US

Client Reference No.: 82611-5D

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

DAVID SCOTT WISHART et al.

Application No.: 10/615,416

Filed: July 7, 2003

For: AUTOMATIC IDENTIFICATION OF COMPOUNDS IN A SAMPLE MIXTURE BY MEANS OF NMR SPECTROSCOPY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 Examiner: Unassigned

Art Unit: 1641

SUPPLEMENTAL INFORMATION

DISCLOSURE STATEMENT UNDER 37 CFR

§1.97 and §1.98

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the foreign patent publications and non-patent references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Respectfully submitted,

Kenneth R. Allen Reg. No. 27,301

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834

Tel: 650-326-2400 Fax: 650-326-2422

KRA:rnh 60100446 v1



Substitute for form 1449A/PTO C mplete if Kn wn 10/615,416 **Application Number** INFORMATION DISCLOSURE Filing Date July 7, 2003 STATEMENT BY APPLICANT **David Scott Wishart** First Named Inventor Art Unit 1641 (use as many sheets as necessary) **Examiner Name** Unassigned 080586-000100US Sheet of Attorney Docket Number 5

		<del>,</del>	U.S. PATENT DO	COMENTALS	
Examiner Initials*	Cite No.1	Document Number  Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	2003/0023386	01-30-2003	Aranibar et al.	
	2	2002/0145425	10-10-2002	Ebbels et al.	
	3	6,063,026	05-16-2000	Schauss et al.	
	4	6,035,246	03-07-2000 <sup>-</sup>	Wagner	
	5	5,926,773	07-20-1999	Wagner	
	6	5,887,588	03-30-1999	Usenius et al.	
	7	5,878,746	03-09-1999	Lemelson	
	8	5,822,219	10-13-1998	Chen et al.	
	9	5,726,570	03-10-1998	Spraul et al.	
	10	5,710,713	01-20-1998	Wright et al.	
	11.	5,685,300	11-11-1997	Kuenstner	
	12	5,668,373	09-16-1997	Robbat Jr., et al.	
	13	5,629,210	05-13-1997	Hercules et al.	
	14	5,618,734	04-08-1997	· Niwa et al.	
	15	5,617,861	04-08-1997	Ross et al.	
	16	5,559,038	09-24-1996	Kolhouse et al.	
	17	5,517,856	05-21-1996	Hofmann et al.	
	18	5,470,750	11-28-1995	Bar-or	
	19	5,446,681	08-29-1995	Gethner	
	20	5,397,987	03-14-1995	Garritano	,
	21	5,397,989	03-14-1995	Spraul et al.	
	22	5,338,687	08-16-1994	Lee	
	23	5,318,031	06-07-1994	Mountford et al.	
	24	5,313,406	05-17-1994	Kauppinen et al.	
	25	5,308,982	05-03-1994	Ivaldi et al.	
	26	5,283,036	02-01-1994	Hofmann et al.	
	27	5,261,405	11-16-1993	Fossel	
	28	5,258,712	11-02-1993	Hofmann et al.	
	29	5,247,175	09-21-1993	Schoen et al.	
	30	5,231,031	07-27-1993	Szwergold et al.	
	31	5,229,716	07-20-1993	Demoment et al.	
	32	5,220,302	06-15-1993	Nunnally et al.	
	33	5,218,529	06-08-1993	Meyer et al.	
	34	5,213,101	05-25-1993	Fossel	,
	35	5,207,715	05-04-1993	Fossel	
	36	5,198,766	03-30-1993	Spraul et al.	
	37	5,146,166	09-08-1992	Bartuska	
	38	5,124,267	06-23-1992	Humpel et al.	
	39	5,072,732	12-17-1991	Rapoport et al.	
	40	5,055,389	10-08-1991	Bar-Or et al.	
	41	5,046,846	09-10-1991	Ray et al.	

Examiner Signature Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). Kind Codes of U.S. Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Nichology of the standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.



Substitu	ite for form 1449A/P	roth	(8)		Complete if Known
				Application Number	10/615,416
INF	DRMATION		SCLOSURE	Filing Date	July 7, 2003
STA	TEMENT E	3Y 🛭	PPLICANT	First Named Inventor	David Scott Wishart
				Art Unit	1641
	(use as many sh	eets a	s necessary)	Examiner Name	Unassigned
Sheet	2	of	5	Attorney Docket Number	080586-000100US

		-	U.S. PATENT DO	OCUMENTS+	
Examiner Initials*	Cite No. <sup>1</sup>	Document Number  Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	42	5,041,789	08-20-1991	Keller et al.	
	43	5,015,954	05-14-1991	Dechene et al.	
	44	4,988,628	01-29-1991	Nanji	
	45	4,975,581	12-04-1990	Robinson et al.	
	46	4,940,055	07-10-1990	Brown	
	47	4,918,021	04-17-1990	Fossel	
	48	4,912,050	03-27-1990	Fossel	
	49	4,851,780	07-25-1989	Dejon et al.	
	50	4,728,889	03-01-1988	Gadian et al.	
	51	4,390,633	06-28-1983	Merilan et al.	
	52	4,081,742	03-28-1978	Hofer et al.	
	53	3,789,832	02-05-1974	Damadian	

		FOREIGN PA	TENT DOCUME	NTS		
Examiner Initials*	Cite No.1	Foreign Patent Document  Number <sup>4</sup> Country Code <sup>3</sup> Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	54	EP0350546	01-17-1990	Advanced Techtronics		
	55	WO00/65366	11-02-2000	Lipomed, Inc.		<u> </u>
	56	WO00/51054	08-31-2000	Lipomed, Inc.		
	57	WO99/54751	10-28-1999	Sorland		
	58	WO98/39664	09-11-1998	Universidad Nacional et al.		
	59	WO97/47973	12-18-1997	The McLean Hospital Corp.		
	60	WO96/38083	12-05-1996	The John Hopkins University		
	61	WO94/20863	09-15-1994	Birkbeck College	·	
	62	WO93/03450 .	02-18-1993	North Carolina State Univ.		
	63	WO92/11807	07-23-1992	The Beth Israel Hospital		
	64	WO91/16852	11-14-1991	Chiscan AB		
	65	WO91/10128	07-11-1991	The Beth Israel Hospital		
	<u> </u>					<u> </u>

Examiner Signature	Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 

Applicant's unique citation designation number (optional). 

Kind Codes of U.S. Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. 

Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 

For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 

Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 

Applicant is to place a check mark here if English language Translation is attached. 

60100446 v1



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449B/PTO

3

Sheet

(use as many sheets as necessary)

of 5

Compl te if Known				
Application Number	10/615,416			
Filing Date	July 7, 2003			
First Named Inventor	David Scott Wishart			
Art Unit	1641			
Examiner Name	Unassigned			
Attomey Docket Number	080586-000100US			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	66	"NMR Lipoprotein Subclass Analysis: NMR LipoProfile Research Service", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610, http://www.lipoprofile.com/lipomed/ Products_Technology/R&D/R&D.htm [printed March 14, 2001]	
	67	"Frequently Asked Questions", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610, http://www.lipoprofile.com/lipomed/FAQS/faq.html [printed March 14, 2001]	
	68	"Understanding the NMR LipoProfile", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610 (2001).	
	69	"Varian Nuclear Magnetic Resonance Systems - Bayesian Software", Varian, Inc., 3120 Hansen Way, Palo Alto, CA 94304-1030, USA, http://www.varianinc.com/nmr/products/software/bayesianonepr.html [printed March 19, 2001]	
	70	"About INCA", http://www.bruker.com/nmr/Products/INCA/index.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	71	"INCA Siting", http://www.bruker.com/nmr/Products/INCA/inca_siting.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	72	"INCA Configurations", http://www.bruker.com/nmr/Products/INCA/inca_config.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	73	"About NMR Suite", http://www.bruker.com/nmr/Software/software.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	74	"NMR Suite - AMIX", http://www.bruker.de/analytic/nmr-dep/nmrsoftw/prodinfo/au_home/amix/index.htm [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	75	"AMIX Tutorial", http://www.bruker.de/analytic/nmr-dep/nmrsoftw/prodinfo/amix_aurelia/amix_tourTOC.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	76	"Who we are", http://www.acdlabs.com/company.html [printed March 19, 2001], Advanced Chemistry Development Inc., 90 Adelaide Street West, Suite 702, Toronto, Ontario, M5H 3V9, Canada.	
	77	"ACD/Labs - Spectral Laboratory", http://www.acdlabs.com/products/spec_lab [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	78	"ACD/Combi NMR", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr/tech.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	79	"ACD/Combi NMR: Overview - Combinatorial NMR Data Processing and AnalysisSoftware", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	80	"Combi NMR Interface", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr/intr.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	81	"NMR Spectroscopy", http://www.acdlabs.com/products/spec_lab/nmr.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449B/PTO

Application Number 10/615,416 Filing Date July 7, 2003 First Named Inventor David Scott Wishart Art Unit 1641 Examiner Name Unassigned

Complete if Known

080586-000100US

(use as many sneets as necessary)						
Sheet 4	of	5				

Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
	82	"ACD/CNMR: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/cnmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	!
	83	"ACD/HNMR: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/hnmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	84	"Software Reviews: ACD/NMR Processor", http://www.acdlabs.com/publish/acd_nmr_proc.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	85	"CNMR Spectrum generator v4.5," http://ilab.acdlabs.com/webstore/dcnmrgen.htm [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	86	"ACD/2D NMR Predictor: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/2d_nmr [printed March 19, 2001], Advanced Chemistry Development Inc., 90 Adelaide Street West, Suite 702, Toronto, Ontario, M5H 3V9, Canada.	
	87	"ACD/NMR Manager, Version 5.0 for Windows, Application Note", 2001, Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	88	BAMFORTH et al "Diagnosis of inborn errors of metabolish using 1H NMR spectroscopic analysis of urine," J. Inher. Metab. Dis., SSIEM and Kluwer Academic Publishers, printed in the Netherlands, 22:297-301 (1999).	
	89	BRUST "NMR Chemical Shifts", Nuclear Magnetic Resonance, University of Southern Mississippi, http://www.psrc.usm.edu/macrog/nmrsft.htm [printed November 28, 2000].	
	90	BRUST "Nuclear Magnetic Resonance Spectroscopy", University of Southern Mississippi, http://www.psrc.usm.edu/macrog/nmr.htm [printed November 28, 2000].	
-	91	BUSZKO " A World Wide Web Interface to an NMR Spectrometer," available at <a href="http://micro.ifas.ufl.edu">http://micro.ifas.ufl.edu</a> (1997, 2003).	
	92	EMSLEY et al. "Magnetic Resonance, Historical Perspective," <u>Encyclopedia of Spectroscopy and Spectrometry</u> , Academic Press: pp. 1232-1240 (2000).	
	93	FREEDMAN et al. "Relation of Lipoprotein Subclasses as Measured by Proton Nuclear Magnetic Resonance Spectroscopy []," Reprint from Arteriosclerosis, Thrombosis and Vascular Biology 18:1046-1053 (1998).	
	94	GOLOTVIN et al."Improved Baseline Correction of FT NMR Spectra", NMR Newsletter, October 1999, <a href="http://www.acdlabs.com/publish/nmr_ar.html">http://www.acdlabs.com/publish/nmr_ar.html</a> (visited October 30, 2001), Canada, pp. 1-3, Advanced Chemistry Development Inc., Canada.	
	95	HOLMES et al "Proton NMR analysis of plasma from renal failure patients: evaluation of sample preparation and spectral-editing methods," Journal of Pharmaceutical & Biomedical Analysis 8:955-958 (1990).	
	96	HOLMES et al, "Automatic Data Reduction and Pattern Recognition Methods for Analysis of 1H Nuclear Magnetic Resonance Spectra of Human Urine," Analytical Biochemistry 220:284-296 (1994).	
	97	HORNAK "The Basics of NMR," available at <a href="http://www.cis.rit.edu/htbooks/nmr">http://www.cis.rit.edu/htbooks/nmr</a> (1997, 2002).	

Attorney Docket Number

	——————————————————————————————————————		,
Examiner		Date	
Signature	•	Considered	
Cignatare		•••••••	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.



Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet

5

(use as many sheets as necessary)

Complete if Known				
Application Number	10/615,416			
Filing Date	July 7, 2003			
First Named Inventor	David Scott Wishart			
Art Unit	1641			
Examiner Name	Unassigned			
Attorney Docket Number	080586-000100US			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	т
	98	LINDON et al. "Biofluids Studied by NMR," In Encyclopedia of Spectroscopy and Spectrometry. Academic Press, pp. 98-116 (2002).	
	99	LINDON et al. "Multicentre Assessment of Small Molecule Quantitation in Human Blood Plasma Using 1H NMR Spectroscopy," Journal of Magnetic Resonance Analysis, England, pp. 66-74(1996).	
	100	LINDON et al. "NMR Spectroscopy of Biofluids," Annual Reports on NMR Spectroscopy, Academic Press, ISBN 012505338X, 38:1-88 (1999).	
	101	NICHOLSON et al "750 MHz 1H and 1H-13C NMR Spectroscopy of Human Blood Plasma," Analytical Chemistry, 67:793-811 (1995).	
	102	NICHOLSON et al. "'Metabonomics': understanding the metabolic responses of living systems [] via multivariate statistical analysis of biological NMR spectroscopic data," Xenobiotica, UK, 29:1181-1189 (1999).	
	103	"Nuclear Magnetic Resonance with a 300 MHz Fourier Transform Spectrometer," Modern Physics Laboratory Manual, Middlebury College, Dept. of Physics, USA, <a href="http://www.middlebury.edu/~PHManual/nuclearmag.html">http://www.middlebury.edu/~PHManual/nuclearmag.html</a> (1992, 1993, 2001).	
	104	PRESS et al. "Parabolic Interpolation and Brent's Method in One Dimension," <u>Numerical Recipes in C - The Art of Scientific Computing</u> , Second edition, Cambridge University Press, pp. 402-405, USA (1992).	
	105	ROBERTSON et al. "Metabonomics: Evaluation of Nuclear Magnetic Resonance (NMR) and Pattern Recognition Technology for [] Toxicants," Toxicological Sciences 57:326-337 (2000).	
	106	SMITH et al." Nuclear Magnetic Resonance Spectroscopy," Analytical Chemistry, Vol. 34:509R-518R (1995).	
	107	SPRAUL et al "Flow Injection Proton [NMR] Spectroscopy Combined With Pattern Recognition Methods []," Analytical Communications, Royal Society of Chemistry (UK) 34:1-3 (1997).	
	108	SYKES et al. "Checking pH without an Electrode", The NMR Newsletter, 966 Elsinore Court Palo Alto, CA, 94303, 30 June 1998 (received 7/3/98), 479-11 and 479-12 (1998).	
	109	WILLIAMS et al. "The ABC of Metabonomics: Automated Baseline Correction," March 11- 16, 2001, Orlando, Florida, USA, 42nd ENC, ACD Users Meeting, pp. 1-8 (2001).	
	110	WISHART et al. "Magnetic Resonance Diagnostics: A New Technology for High-Throughput Clinical Diagnostics," Clin Chem 47:1918-1921 (2001).	

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.